Ground-breaking Los Alamos inventions grab honors

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LOS ALAMOS, N.M., July 17, 2019—Los Alamos National Laboratory researchers Patrick McClure and Bob Reid were honored last week with the 2019 Richard P. Feynman Innovation Prize for their work in developing small, cost-effective, and safe nuclear reactor designs to power future habitats in space, as well as remote terrestrial locations.

“Patrick and Bob’s work demonstrates the ingenuity we value at the Laboratory,” said Thom Mason, director of Los Alamos. “They took a simple technology that has existed for decades and modified it for extremely complex missions. The fact that these reactors are close to becoming a reality testifies to the power of tech transfer, the value brought by government and private sector partnerships, and the far-reaching impacts our work can have on industry and the public.”

To produce electricity, the reactor uses a nuclear fission system to generate heat for a small power converter. The technology was successfully tested last year in Nevada in partnership with NASA-Glenn Research Center. The Laboratory is now collaborating with the power company Westinghouse to demonstrate the feasibility of using the reactors to bring power to remote, hard-to-reach locations.

The prize is sponsored by the Richard P. Feynman Center for Innovation, the Laboratory’s tech-transfer division that helps to transition science and technology created at the Laboratory to the private sector. Last year, the Feynman Center was responsible for 389 active licenses with industry, totaling $2.1 million. Also, 79 patents were filed and 87 patents were issued.

At the awards ceremony, five Los Alamos researchers were also inducted into the Innovation Honor Society for their outstanding contributions to scientific discovery, innovation, and the transfer of technology to the commercial sector. Inductees are Po-E (Paul) Li, Velimir (Monty) Vesselinov, Andrew Sutton, John Lewellen, and Alp Findikoglu.

In addition, a select group of Laboratory scientists presented their work to businesses and the community as part of Los Alamos’ annual DisrupTECH event. Kent Coombs won the Best Pitch award for his presentation about an innovative platform to grow living human heart cells on a chip. Derrick Kaseman won the award for Most Fundable Technology for his presentation about using the Earth’s magnetic field to protect waterlines from chemical destruction.

DisrupTECH was hosted by the Richard P. Feynman Center for Innovation, the New Mexico Angels investor group, and the New Mexico Start-Up Factory. Sponsors included the U.S. Economic Development Administration, EY, the Los Alamos Commerce and Development Corporation, Los Alamos Science Fest, NMA Ventures, New Mexico Economic Development, the New Mexico Manufacturing Extension Partnership, and the Regional Development Corporation.

Caption for image below: *Kent Coombs (right) receives his award for Best Pitch from Antonio Redondo (left), director of the Richard P. Feynman Center for Innovation, and John Chavez (center), president of New Mexico Angels.*